AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (currently amended): An annunciator comprising an annunciation and shutdown circuit having input terminals for a first power supply and input terminals for a second power supply, the second power supply being a battery power supply;

said annunciation and shutdown ~~circuits~~ circuit comprising:

i) sensor input circuits sensing electrically detected conditions and generating ~~fault~~ catastrophic and noncatastrophic condition signals in response thereto;

ii) digital display means;

iii) shutdown means for outputting a shutdown signal; and

iv) logic means comprising a microprocessor, sensor input circuit, polling circuits controlled by the microprocessor, and a power mode switch controlled by the microprocessor, said logic means arranged to respond to the fault signals generated by the sensor inputs and causing the shutdown means to output a shutdown signal in response to a catastrophic condition signal, said logic means also configured to cause the digital display means to display ~~fault~~ catastrophic and noncatastrophic conditions;

said first and second power supplies connected to supply power in parallel with each other ~~to the~~ such that either alone can power the entire annunciation and shutdown circuit;

said ~~annunciation and shutdown circuit configured~~ power mode switch arranged to configure the annunciation and shutdown circuit into normal and low power modes, said normal power mode powering the entire circuit and said low power mode powering the microprocessor, selected input polling circuits and digital display means ~~and a portion of the logic means~~;

said logic means ~~for responding~~ arranged to respond to a ~~fault~~ catastrophic condition signal causing the annunciation and shutdown circuit to switch to low power mode upon sensing that a ~~fault~~ catastrophic condition signal has occurred.

Claim 2 (currently amended): An annunciator comprising an annunciation and shutdown circuit having two power supplies, a first external power supply of an interruptible nature and a second internal supply consisting of a non-interruptible primary battery;

said annunciation and shutdown circuit comprising:

i) sensor input circuits sensing electrically detected conditions and generating ~~fault~~ catastrophic and noncatastrophic condition signals in response thereto;

ii) digital display means;

iii) shutdown means for outputting a shutdown signal; and

iv) logic means arranged to respond to the ~~fault~~ condition signals generated by the sensor inputs and causing the shutdown means to output a shutdown signal in response to a catastrophic condition, said logic means also configured to cause the digital display means to display ~~fault~~ catastrophic and noncatastrophic conditions;

said first and second power supplies connected to supply power in parallel with each other to the annunciation and shutdown circuit such that the first power supply supplies power only when it is greater in voltage than the second supply, whereby the service life of said second supply is extended, and such that either alone can power the entire annunciation and shutdown circuit;

said annunciation and shutdown circuit configured for operation from either supply in normal and low power modes, said normal power mode powering the entire circuit and the input sensing means and said low power mode powering the display and a portion of the logic means;

said logic means ~~for responding to a fault~~ arranged to respond to a catastrophic condition signal while powered by either said first or second power supplies causing the annunciation and shutdown circuit to switch to low power mode ~~upon sensing that a fault signal has occurred~~, thereby extending the service life of said second supply.

Claim 3 (original): The annunciator of claim 1 or 2, wherein the first power supply is a capacitor discharge ignition system power supply.

Claim 4 (original): The annunciator of claim 1 or 2, wherein the first power supply is a magnetic pickup.

Claim 5 (original): The annunciator of claim 1 or 2, wherein the first power supply is a source of DC power.

Claim 6 (original): The annunciator of claim 2, wherein the annunciator provides for two parallel connected external sources of power, where either or both function as the first power supply.

Claim 7 (new): The annunciator of claim 1 or 2, wherein the logic means comprises a microprocessor, power latch for the sensor input circuits, and multiplexer chips for polling the sensor circuits.

Claim 8 (new): The annunciator of claim 7, wherein in the low power mode, the microprocessor is powered.

Claim 9 (new): The annunciator of claim 7, wherein in the low power mode, the microprocessor and multiplexer chips are provided.